

PATENT COOPERATION TREATY

REC'D 14 APR 2005

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From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/B2005/050499

International filing date (day/month/year)
08.02.2005

Priority date (day/month/year)
11.02.2004

International Patent Classification (IPC) or both national classification and IPC
G02F1/167

Applicant
KONINKLIJKE PHILIPS ELECTRONICS, N.V.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/B2005/050499

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IB2005/050499

Box No. V Reasoned statement under Rule 43b/s.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-8,12-20
	No: Claims	9-11
Inventive step (IS)	Yes: Claims	7
	No: Claims	1-6,8-20
Industrial applicability (IA)	Yes: Claims	1-20
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item V

**Reasoned statement with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement.**

Reference is made to the following documents:

- D1: US-A-4 931 019 (PARK ET AL) 5 June 1990 (1990-06-05)
- D2: PATENT ABSTRACTS OF JAPAN vol. 014, no. 484 (P-1120), 22 October 1990
(1990-10-22) & JP 02 196227 A (TOYOTA MOTOR CORP), 2 August 1990
(1990-08-02)
- D3: EP-A-0 395 113 (SEIKO INSTRUMENTS INC) 31 October 1990 (1990-10-31)

- 1) The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 9 is not new in the sense of Article 33(2) PCT.

The document D1 discloses (see column 4, line 26-42; column 2, line 12-14 and figures 1-5):

a method for activating an electronic paint, the method comprising:
applying a bias voltage
receiving thermal radiation on a portion of a thermal addressing layer;
absorbing at least a portion of the received thermal radiation in the portion of the thermal addressing layer; and
activating an electrophoretic inkbased on the absorbed thermal radiation and the applied bias voltage.

The additional feature of claim 10 is disclosed in D1, see figures 2-5. Claim 11 lacks novelty because D1 discloses that the radiation is infrared radiation.

- 2) The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1-6 and 8-20 does not involve an inventive step in the sense of Article 33(3) PCT.

The document D2 is regarded as being the closest prior art to the subject-matter of claim 1 and discloses thermal writing of an electrophoretic display. D2 discloses all the features of claim 1, except that D2 does not disclose a thermal addressing layer disposed **on** the lower conductive layer. This feature is however considered as a normal design option for the skilled person, see for example document D3 (figure 1) which discloses a laser addressed liquid crystal light valve with a thermal addressing layer (3) on the electrode (2a).

- 3) Further to the objection under 2) above: The additional features of claims 2-6 and 8-20 are trivial for the skilled person and therefore also lack inventive step. The application does not mention any further problem which is solved by the additional features of claims 2-6 and 8-20.
- 4) The combination of features of claim 7 is neither known from, nor obvious from, the available prior art. The additional feature of claim 7 solves the problem of uncontrolled cooling of the thermal addressing layer, see page 14, lines 30-32 of the application. Consequently, the combination of features of claim 7 meets the requirements of Article 33 PCT.